Abstract

Title:
The formation of algic zones on hands while riding a spinning bike

Objectives:
The aim of the work is verification of changes of nociception in pre-defined points in the cyclists hands during one hour‘s spinning lesson.

Methods:
A total of 13 participants (9 female, 4 male), aged between 20-50 years old, took part in this study. First personal data was collected using a structured questionnaire. Subsequently, the pain threshold in the palms and palmar sides of the fingers of both hands was measured using algometer Algometer type II, from the company Somedic Sales AB. The acquired data was then statistically evaluated and compared by Pearson correlation quotient and analysis of variance ANOVA. A comparison of the pain treshold before and after the spinning lesson, related to gender, dominant and non-dominant hand and the age of participants, was eventually carried out.

Results:
After an hour of spinning had occured, in all measured points there was a reduction in pain threshold with an average of 12.83%. This change was the same in all of the measured points, which means that there was no overloading of one hand or any group of the points. The statistical evaluation has shown, that the change of the pain threshold is not dependent on the gender of the participants, and it is not statistically different to the dominant / non-dominant hand, but is dependent on the age of the participants.

Keywords:
Cycling, spinning, pressure algometer, trigger points